

# PATENT ABSTRACTS OF JAPAN

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## (54) PORTABLE TELEPHONE SET WITH MELODY PATTERN DATA NOTICE FUNCTION

(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a portable telephone set that easily identifies a caller by ringing an optional melody pattern as an incoming call tone at the arrival of an incoming call and simplifies the operation so as to enhance the convenience of users.

**SOLUTION:** The portable telephone set analyzes a message sent from a caller side to extract melody pattern data information and activates a speaker based on the melody pattern data information. The portable telephone set is provided with a storage section 3 that stores edited and generated melody pattern data and sends a setup message after storing the melody pattern data information stored in the storage section 3 to a prescribed column of the setup message in the case of making a call.

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## CLAIMS

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[Claim(s)]

[Claim 1] Personal digital assistant equipment characterized by having the means to which singing of the singing pattern of the ringer tone which carries out singing at the time of arrival of the mail is carried out by the desired pattern in the information to which it was notified from the origination side.

[Claim 2] Personal digital assistant equipment characterized by having making it a means to extract the melody pattern data which analyze the message transmitted from the addresser side and are contained in this message, and the singing means [ loudspeaker ] based on said melody pattern data.

[Claim 3] Personal digital assistant equipment characterized by what it has making it a means to analyze the call setup message transmitted from the origination side, and to extract melody pattern data, and the singing means [ loudspeaker ] based on said melody pattern data, and arrival of the mail is notified for to the singing sound by the melody pattern set up by the origination side.

[Claim 4] Personal digital assistant equipment according to claim 3 characterized by having a means to create and edit a melody pattern, a storage means to memorize the this created melody pattern, and a means to control to store in the predetermined column of a call setup message the melody pattern memorized by said storage means at the time of dispatch, and to transmit.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to the portable telephone equipped with the function to tell arrival of the mail by the melody pattern, about a walkie-talkie terminal unit.

[0002]

[Description of the Prior Art] In the conventional portable telephone, arrival of the mail is told with the fixed melody pattern beforehand set to the portable telephone side.

[0003] Moreover, in the conventional portable telephone, assignment of a melody pattern that a dispatch partner is specified requires various setting actuation by each model.

[0004] In addition, the configuration to which it was made to carry out singing of the loudspeaker by the ringer tone according to whether every operational mode of a line wire and an extension and a calling number are registered into telephone number registration memory by JP,9-93309,A at the time of a call

in as a field radio whose specification of a calling party is enabled only by hearing a ringer tone is indicated.

[0005]

[Problem(s) to be Solved by the Invention] As described above, one fixed pattern beforehand set up by the personal digital assistant machine side is only prepared, and the singing sound which tells arrival of the mail cannot specify an addresser only by hearing a ringer tone in this case.

[0006] Moreover, also when making an addresser correspond and carrying out setting registration to the melody pattern of the shoes prepared beforehand, various setting actuation is needed and it is complicated. Only the singing pattern beforehand prepared also in this case can be used, but the number of setup of matching with a ringer tone and an addresser also has a limit.

[0007] therefore, the thing which this invention is made in view of the above-mentioned trouble, and the purpose does for the singing of the melody pattern of arbitration as a ringer tone at the time of arrival of the mail -- an addresser -- specification -- it is in offering the portable telephone which can presuppose that it is easy, can simplify actuation and can raise a user's convenience.

[0008]

[Means for Solving the Problem] In order to attain said purpose, this invention is equipped with the means to which singing of the singing pattern of the ringer tone which carries out singing by the portable telephone side is carried out by the pattern of arbitration by assignment of an origination side at the time of arrival of the mail.

[0009]

[Embodiment of the Invention] The gestalt of operation of this invention is explained. In the gestalt of the desirable operation, the portable telephone of this invention is equipped with making it a means to analyze the message transmitted from the origination side and to extract melody pattern data information, and the singing means [ loudspeaker ] based on these melody pattern data, and notifies arrival of the mail to the singing sound by the melody pattern set up by the origination side. Melody pattern data are preferably added and transmitted to a call setup message.

[0010] Moreover, the portable telephone of this invention is set in the gestalt of the desirable operation, and is equipped with a means to create and edit a melody pattern, a means to memorize the this created melody pattern, and a means to control to store in the predetermined column of a message the melody pattern memorized by said storage section at the time of dispatch, and to transmit.

[0011]

[Example] The example of this invention is explained below with reference to a drawing. Drawing 1 is drawing showing the configuration of one example of this invention. When drawing 1 is referred to, the portable telephone of one example of this invention The key input section 1 for making the dial input at the time of dispatch, the response at the time of arrival of the mail, a selection of function, etc., The display 2 for displaying a display/alphabetic data, and the storage section 3 which memorizes melody pattern data, The wireless section 5 which performs transmission and reception of an electric-wave signal with a non-illustrated base station through the transceiver antenna 6, The input from the key input section 1 was detected, and it has the display control to a display 2, control of I/O of data with the storage section 3, the control to which singing of the loudspeaker is carried out through the amplifier whose melody pattern is not illustrated, the wireless section 5, and the control section 4 which manages control of transmission and reception of the data at the time of a communication link, respectively.

[0012] Drawing 2 (a) and drawing 2 (b) are the flow charts showing the origination side of one example of this invention, and the processing flow of a destination side, and show the flow of processing at the time of operating the notice function of melody pattern data.

[0013] At the terminal of an origination side, melody pattern data are edited by key input from the key input section 1 (step S11), and the edited melody pattern data are stored in the storage section 3 through a control section 4 (step S12).

[0014] The melody pattern data stored in the storage section 3 at the time of dispatch are transmitted to a dispatch partner's portable telephone from the wireless section 5 through a control section 4 (step S13).

[0015] At the terminal of a destination side, the melody pattern data which analyzed and (step S21)

analyzed the melody pattern data notified from the origination side by the control section 4 through the wireless section 5 at the time of arrival of the mail are amplified with non-illustrated amplifier through a control section 4, and singing of the loudspeaker is carried out (step S22).

[0016] Drawing 3 and drawing 4 show the example of transmission of the melody pattern data at the time of using the portable telephone of a digital method in one example of this invention.

[0017] In addition, about a call setup (SETUP) data format, "digital method land mobile radiotelephone system standard RCR-STD27F" etc. is referred to.

[0018] Melody pattern data are using the user User Information element in a call setup (SETUP) message, and it can perform transmitting to a destination-side (partner) portable telephone. As shown in drawing 4 (c), a call setup message is transmitted to a destination side through a non-illustrated base station and a telephone network from an origination side.

[0019] In a destination side, the data of the received user User Information element (refer to drawing 4 (b)) of a call setup (SETUP) message are analyzed, melody pattern data are extracted, this is changed into an analog signal, it amplifies with amplifier, and singing is carried out from a loudspeaker.

[0020]

[Effect of the Invention] As explained above, according to this invention, it becomes possible to specify a dispatch partner with the melody pattern notified from an origination side at the time of arrival of the mail, and the effectiveness that a user's convenience can be raised is done so.

[0021] Moreover, according to this invention, an addresser can set a melody pattern as arbitration, can notify arrival of the mail by a user's original creation melody, and improves the operability of a portable telephone, and availability.

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#### DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is drawing showing the configuration of one example of this invention.

[Drawing 2] It is the flow chart showing the processing flow of one example of this invention, and (a) shows an origination side and (b) shows the processing flow of a destination side.

[Drawing 3] It is drawing showing an example of the message format of one example of this invention.

[Drawing 4] It is drawing showing the message format and message transfer procedure of one example of this invention.

[Description of Notations]

1 Key Input Section

2 Display

3 Storage Section

4 Control Section

5 Wireless Section

## 6 Antenna

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**DRAWINGS**

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[Drawing 1]

x

[Drawing 2]



[Drawing 3]



x

[Drawing 4]

x|

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